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September 26, 2011

**VIA ELECTRONIC MAIL AND U.S. MAIL**

Ms. Molly DeSalle
United States Environmental Protection Agency
Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

**Re: Request for Information received September 12, 2011**

Dear Ms. DeSalle:

I am writing on behalf of Green Plains Otter Tail LLC ("GPOT"). On September 12, 2011, GPOT received a Request to Provide Information Pursuant to the Clean Air Act, dated September 6, 2011. The deadline for submitting the response to the Information Request is thirty days from receipt or October 12, 2011. This letter is to confirm that, because of the extensive resources and time required to completely respond to the Information Request, EPA has agreed to a 30-day extension of the submittal deadline. Due to the Veterans' Day holiday and the subsequent weekend, GPOT will submit its response by November 14, 2011.

As we discussed on the phone, GPOT is diligently compiling all information to respond to the Information Request. The scope of EPA's request is quite broad and requires collecting, reviewing and assembling a substantial amount of data and potentially a large number of documents. Much of the information and data relates to operating information that must be identified and collected by the plant's manufacturing staff. These staff members will also be working on other matters, including a scheduled plant maintenance turnaround during this time period. Thus, the additional time is warranted.

During our phone conversation it was agreed that, for questions that requested information to the present, it is acceptable that GPOT provide information ending August 31, 2011. Further, for those requests that identified a specific format for the submission of data, GPOT will endeavor to provide the data in the requested format where it is readily available in that format. If GPOT, however, does not have the data in the

requested format, GPOT will submit the data that it has in the format that it regularly keeps the data.

Finally, I would like to confirm my understanding with respect to GPOT's response to Request 20. EPA has agreed that the request is broader than intended and GPOT can reasonably limit its response to Request 20 to documents identified pursuant to searches of relevant files and e-mail accounts in a manner designed to identify and provide documents related to venting episodes, including, if any, discussions of design and operation of the equipment that would tend to eliminate, reduce or provide for additional venting. In its November 14, 2011 response, GPOT will identify the scope of its search and the search terms utilized. If my understanding is not correct, please contact me at your earliest opportunity.

Please direct any questions concerning this issue to me at (314) 480-1826.

Very truly yours,

Michael D. Montgomery

MDM/smh

## NARRATIVE RESPONSE

Unless otherwise specifically identified for each question, the following people provided information or were consulted in preparing the responses below: Anthony Hicks, General Manager, Green Plains Otter Tail LLC (GPOT); Michelle Mapes, General Counsel, Green Plains Renewable Energy, Inc. (GPRE); Erica Montefusco, GPRE; Jeff Briggs, GPRE; Janet Aultman, GPOT; Mark Larson, GPOT; Kristi Tostenson, GPOT; Keith Wetzel, GPOT; Troy Enright, Natural Resource Group LLC (NRG).

Note: As noted below, responsive documents are located in folders corresponding to each question. Where folders are empty, no responsive documents were located.

**(1) Provide the name and address of the original owner and/or operator of the facility. Specify when Green Plains acquired or otherwise became owner of the facility, and identify the individual(s), corporation(s) or other entities from whom the facility was acquired. Explain if Green Plains has any corporate, partnership or other business relationships or affiliations with any previous owner or operator of the facility, and if so, provide a complete description of such relationship and affiliation. Provide a list of current owners and the current corresponding ownership stake in the facility.**

1. Facility ownership information requested is as follows:
    - The original owner and/or operator of the Facility was Otter Tail Ag Enterprises LLC.
    - The address of the original owner and/or operator was the Facility's address (24096 170th Avenue, Fergus Falls, MN 56537).
    - Date of acquisition: The Facility assets were purchased on March 24, 2011.
    - Entity from whom the Facility was acquired: Otter Tail Ag Enterprises LLC.
    - GPOT has no business relationship or affiliation with any previous owner or operator.
    - Current owners and corresponding ownership stake in the Facility: The Facility is wholly owned by GPOT.

**(2) Provide the following information related to grain, from the time period from the facility's first day of operation to present:**

**a. Grain received (tons/month);**
**b. Grain in storage (tons);**
**c. Grained processed, based on amount received adjusted for change in amount stored (tons/month);**
**d. Grain processed;**
**e. Facility's total permanent grain storage capacity; and**
**f. Identify whether the facility is subject to 40 C.F.R. 60, Subpart DD, Standards of Performance for Grain Elevators.**

2. The grain information is as follows:
    a. Grain received – See Folder 2 for summary table
    b. Grain in storage – See Folder 2 for summary table
    c. Grain processed, adjusted – See Folder 2 for summary table
    d. Grain processed – See Folder 2 for summary table
    e. The Facility has a total permanent grain storage capacity of 617,000 bushels. GPOT is in the process of adding an additional 576,222 bushel corn storage bin, which, once approved would bring the total Facility grain storage capacity to 1.2 million bushels.
    f. GPOT is not subject to 40 CFR 60, Subpart DD, Standards for Performance of Grain Elevators. The Facility has a total permanent grain storage capacity of 617,000 bushels, which is below the 2.5 million bushel threshold identified in 40 CFR 60, Subpart DD.

**(3) Provide documentation demonstrating the total Dry Distillers Grain (DDG) production at the facility in terms of dry feed or dry feed equivalent in tons per month and tons per year, from the time period from the facility's first day of operation to present.**

3. The total Dry Distillers Grain (DDG) produced at the Facility (in tons per month and tons per year of dry feed or dry feed equivalent) since it began operating is provided in Folder 3.

**(4) Provide documentation demonstrating the total Wet Distillers Grain (WDG) production at the facility in terms of dry feed or dry feed equivalent in tons per month and tons per year, from the time period from the facility's first day of operation to present.**

4. The total Wet Distillers Grain (WDG) produced at the Facility (in tons per month and tons per year of dry feed or dry feed equivalent) since it began operating is provided in Folder 4.

**(5) Provide documentation demonstrating the total fuel grade ethanol production (200 proof) at the facility in terms of million gallons per month and million gallons per year, from the time period from the facility's first day of operation to present.**

5. The total fuel grade ethanol (200 proof) produced at the Facility (in gallons) since it began operating is provided in Folder 5.

**(6) Provide documentation demonstrating the total natural gas usage by the facility in million cubic feet per month and million cubic feet per year, from the time period from the facility's first day of operation to present.**

6. The total natural gas used by the Facility (in MMBtu) since it began operating is provided in Folder 6.

**(7) Provide the actual annual emissions reported to the Minnesota Pollution Control Agency (MPCA) for the facility, for the from the time period from the facility's first day of operation to present. Provide the method for the annual emissions calculations, including the basis of any emissions factors used, and a copy of the reports. This should include all pollutants reported to the MPCA.**

7. Copies of the Air Emission Inventory Reports (AEIRs) for calendar years 2008, 2009 and 2010 and the Air Toxics Emissions Inventory prepared for calendar year 2008 submitted to MPCA are included in Folder 7. The calculation methodologies and basis for emission factors used to calculate the air emissions included in these reports are identified within the reports. Where the EPA's Tanks emission estimation software was used, output files are included in the report. Where performance test results were used, the performance test reports are also included in Folder 7.

**(8) Provide an electronic Excel workbook with the complete, facility-wide potential to emit calculations. Include in the response a written description of how each column in the Excel workbook is generated. Additionally, provide copies of the following records related to all emissions from the facility, from the time period from the facility's first day of operation to present:**

**a. Documentation used to establish the emission rates or factors and maximum hourly emission rates for emissions of different pollutants used by the facility to determine emissions of the various process units and all other emission points at the facility;**
**b. Records of all other data used or relied upon by the facility to determine the emissions of the process units and other emission points, including physical and chemical constants; and**
**c. Records for upsets in the operation of any process units (e.g. feed dryers) that could generate additional emissions, with a description of the incident, explanation, and corrective actions and any preventative measures taken, and an estimate of the additional emissions that occurred, with supporting calculations and background information.**

8. The Facility's potential-to-emit (PTE) calculations are presented in an Excel workbook in Folder 8. Each criteria pollutant, total HAP emissions, greatest single HAP emissions, and greenhouse gas emissions are displayed in separate columns. Each emission point is calculated from separate tabs that represent separate emission groups.

    a. Emission rates or factors and maximum hourly rates for emissions were established as indicated in the permit application and applications for permit amendments. See Folder 8a within Folder 8.

    b. As noted in the notes in the "Cover Page" tab, NRG also used stack test reports for other ethanol facilities available at the time of facility permitting to derive emission rates or factors emissions of the process units and other emission points. Copies of these stack test reports are included in Folder 8b within Folder 8.

    c. GPOT does not keep separate records for process upsets. However, there have been no upsets that would result in significant emissions since GPOT assumed facility operations in March 2011. GPOT is not aware of any upsets that would result in significant emissions occurring during Otter Tail Ag Enterprises' ownership of the Facility.

**(9) Provide a list and copies of each stack test conducted on any emissions unit for any reason at the facility, from the time period from the facility's first day of operation to present. Include all test runs, even if a full test series was not completed. In the response, clearly identify the emissions unit; specify the date of the test, and test method(s) used. Emissions testing includes, but is not limited to, compliance testing, engineering testing, and testing for general information. Also provide a copy of any report that resulted from the emissions test that meets the above criteria. Indicate whether such report was shared with the local and/or state permitting agency. A copy of the summary pages from each report is not sufficient. Provide copies of the entire report. Provide all calculations relative to the stack test, and provide copies of the full test report, including the section describing the process parameters and production or processing rates at the time of the test. Also, provide copies of any reports of visible emission observations conducted during each test. For each test during which the source was not operating at maximum design capacity, provide an explanation why production was limited.**

9. A table listing emission testing events and copies of reports are provided in Folder 9. For engineering testing, reports were not generated. Operating conditions associated with each test are identified in the table listing the emission testing events.

**(10) Provide copies of manufacturer specifications for all RTO/TOs at the facility. Specifications must include a diagram of the entire unit and any filters or particulate capture systems the unit utilizes to prevent particulate build up. If filters are a part of the facility's RTO/TOs, provide a date (DD/MM/YYYY) and description of any issues the facility has had with the internal filters.**

**10.** Responsive document(s) is/are provided in Folder 10. Other than a filter screen, filters as not used as part of this facility's RTO.

**(11) Provide the following information for each boiler at the facility, from the time period from the facility's first day of operation to present:**

**a. Identify if the boiler is an "affected" boiler under 40 C.F.R. 60, Subpart Db, the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating units;**
**b. Identify if the boiler is an "affected" boiler under 40 C.F.R. 63, Subpart DDDDD, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial-Commercial-Institutional boilers and process heaters;**
**c. Identify the fuel used in the boiler;**
**d. The design heat capacity/input (mmBTU/hour);**
**e. All oxygen levels, measured in the flue gas (in hourly averages, on a dry basis);**
**f. Any permit deviation reports, including start-up, shut-down and malfunction; and**
**g. Operating hours in hours per month and hours per year.**

11. GPOT has two boilers, identified as Boiler 1 (Emission Unit 028) and Boiler 2 (Emission Unit 029) in the Facility air permit. Boiler information requested is as follows:

    a. Boilers 1 and 2 each have a burner capacity of 92.05 million British thermal units (MMBTU) per hour, and are, therefore, not "affected" boilers under 40 CFR 60, Subpart Db.

    b. GPOT is not a Major Source of HAP; therefore, Boilers 1 and 2 are not subject to 40 CFR 63, Subpart DDDDD.

    c. Boilers 1 and 2 use natural gas as their fuel source.

    d. See the response to Question 11a.

    e. GPOT does not continuously monitor oxygen levels in the boiler flue gas. Responsive document(s) (i.e., where oxygen levels were measured in association with testing or required monitoring) is/are provided in Folder 11e within Folder 11.

    f. Responsive document(s) is/are provided in Folder 11f within Folder 11.

    g. Operating hours for each boiler are provided in Folder 11g within Folder 11.

**(12) Provide the following information for each baghouse at the facility, from the time period from the facility's first day of operation to present:**

**a. A copy of the manufacturer's specifications and recommended operating and maintenance procedures;**
**b. All records of the differential pressure reads taken at each baghouse;**
**c. All inspection, maintenance, and repair logs;**
**d. Identify if a fixed stack damper is installed, and list the installation date and the acfm the unit restricts flow to;**
**e. All records from any continuous monitoring devices used to monitor flow rates (acfm) of direct discharge to the atmosphere from the baghouse;**
**f. Documentation to confirm fabric filters emission limit in grain per standard cubic feet (gr/scf);**
**g. Documentation of how the emissions factors were derived and maximum hourly emission rates used by the facility to determine PM emissions, if not specifically detailed in permit application; and**
**h. Any excess opacity or opacity deviation reports, including start-up, shut-down and malfunction.**

12. Baghouse information requested is as follows:

a. Responsive document(s) is/are provided in Folder 12a within Folder 12.

b. Responsive document(s) is/are provided in Folder 12b within Folder 12.

c. Responsive document(s) is/are provided in Folder 12c within Folder 12.

d. GPOT does not have fixed stack dampers on any of the Facility baghouses.

e. GPOT does not have any continuous monitoring devices to monitor flow rates of direct discharge to the atmosphere from any of the Facility baghouses.

f. Documentation to confirm emission limits are met by fabric filters is provided herein as follows: stack test reports (see documents responsive to Question 9), and daily pressure drop readings (see documents responsive to Question 12).

g. Derived as detailed in permit application.

h. GPOT does not conduct opacity testing.

**(13) Provide copies of manufacturer specifications for all scrubbers at the facility. Provide the following information for each scrubber at the facility, from the time period from the facility's first day of operation to present:**

**a. Minimum scrubber water flow rate (hourly average);**
**b. Maximum scrubber water outlet temperature (°F, hourly average);**
**c. Maximum scrubber exhaust gas outlet temperature (°F, hourly average);**
**d. Type and minimum usage rate of scrubbing additive for control of acetaldehyde (gallons per day);**
**e. Pressure drop (inches of water column);**
**f. Any permit deviation reports, including start-up, shut-down and malfunction reports; and**
**g. Inspection, maintenance, and repair logs.**

13. Responsive document(s) is/are included in Folder 13. Scrubber information requested is as follows:

a. Responsive document(s) is/are provided in Folder 13a within Folder 13.

b. This information is not tracked.

c. This information is not tracked.

d. A bisulfite additive is currently utilized in the CO2 and vent gas scrubbers at a rate of 19.2 gpd and 19.2 gpd respectively. Since start-up in 2008, the rate of additive addition has varied from 0 to 19.2 gpd for the CO2 scrubber and from 0 to 19.2 gpd for the vent gas scrubber.

e. Responsive document(s) is/are provided in Folder 13e within Folder 13.

f. Responsive document(s) is/are provided in Folder 13f within Folder 13.

g. Responsive document(s) is/are provided in Folder 13g within Folder 13.

**(14) Provide the following information for each RTO/TO at the facility, from the time period from the facility's first day of operation to present:**

**a. Documentation demonstrating if the RTO/TO is a regenerative or recuperative RTO/TO;**
**b. Rated firing capacity of each fuel burner (mmBtu/hour);**
**c. Monthly natural gas usage records (in cubic feet per month);**
**d. Hourly temperature readings, in an Excel Workbook, including date and time of readings;**
**e. Records from the monitoring system used to monitor the valve or damper position on the flow of each control device directing towards various exhaust streams to the RTO/TO;**
**f. Most recent efficiency testing results and date of efficiency test;**
**g. Describe any maintenance issues the facility has needed to correct since the construction and operation of the unit; and .**
**h. Any permit deviation reports, including start-up, shut-down and malfunction.**

14. Regenerative Thermal Oxidizer (RTO) information requested is as follows:

a. Responsive document(s) is/are provided in Folder 14a within Folder 14.

b. RTO manufacturer specifications provide for a normal operating range of 4.18-5.29 MMBtu/hr.

c. This information is not tracked for individual pieces of equipment.

d. This information is recorded on a minute by minute basis. Due to technical limitations, that information was not reasonably available for production at this time but will be provided as soon as practicable.

e. No monitoring system is in place.

f. GPOT has not performed RTO efficiency testing.

g. Responsive document(s) is/are provided in Folder 14g within Folder 14.

h. Responsive document(s) is/are provided in Folder 14h within Folder 14.

**(15) For the facility's leak detection and repair program, provide the following, from the time period from the facility's first day of operation to present:**

**a. A copy of all applicable notifications and reporting documents required by 40 C.F.R. § 60.487;**
**b. Any permit deviation reports; and**
**c. A copy of the most recent semi-annual compliance report, which lists all components tested and the status of each component.**

15. Leak detection and repair program information requested is as follows:

a. Responsive document(s) is/are provided in Folder 15a within Folder 15.

b. Responsive document(s) is/are provided in Folder 15b within Folder 15.

c. Responsive document(s) is/are provided in Folder 15c within Folder 15.

**(16) Provide copies of the following operating log(s), from the time period from the facility's first day of operation to present:**

**a. For process units controlled by an RTO/TO, the operating levels of the units during periods when units operated when the RTO/TO was out of service or was experiencing an upset or malfunction; and**
**b. For feed dryers (including cooling drum), periods when feed is present in a dryer while the associated RTO/TO not in operation.**

16. Operating log information requested is as follows:

a. Responsive document(s) is/are provided in Folder 16a within Folder 16.

b. Responsive document(s) is/are provided in Folder 16b within Folder 16.

**(17) Provide the following information about the feed drying, feed cooling and load out process, if not already included in response to Question 8:**

**a. Identify all cyclones for the feed dryers by identification number;**
**b. A copy of the manufacturer's specifications and recommended operating and maintenance procedures for the cyclones;**
**c. Efficiency rate of the cyclones;**
**d. If emissions from feed cooling drum are handled by a baghouse and an RTO/TO, provide the percentage of feed cooling drum air flow handled by RTO/TO and if the facility can adjust to volume of air the RTO/TO receives from the feed cooling drum;**
**e. Records of the monthly and annual particulate matter (PM), volatile organic compounds (VOC), and hazardous air pollutant (HAP) emissions from the feed cooling and transport system, with supporting calculations;**
**f. Records of the monthly and annual PM emissions from the DDG load out system, with supporting calculations; and**
**g. Records of the monthly and annual VOC and HAP emissions from WDG transfer and load out, with supporting calculations.**

17. Feed drying, feed cooling and load out process information requested is as follows:

    a. GPOT has a multiple cyclone, which has a unit identification number of CE 029.

    b. Responsive document(s) is/are provided in Folder 17b within Folder 17.

    c. GPOT does not have information regarding the stand-alone efficiency of the cyclone.

    d. 100% of DDGS Cooler emissions are routed to the RTO. The Facility is not able to adjust the volume of air from the DDGS Cooler to the RTO as emissions are directed to the RTO via a fixed pipe.

    e. Because emissions from DDG cooling activities at GPOT are controlled via the RTO, emission records for the DDG cooling/transfer system, by itself, are not generated. Responsive document(s) is/are provided in Folder 17e-g.

    f. Responsive document(s) is/are provided in Folder 17e-g.

    g. Responsive document(s) is/are provided in Folder 17e-g.

**(18) Provide a copy of the facility's Startup, Shut -down, Malfunction Plan.**

18. Responsive documents relating to starting up, shutting down, and malfunctions of specific equipment are provided in Folder 18.

**(19) A list and copies of all air permits and permit applications, including any permits to construct, to operate, or orders issued. In the list:**

**a. Specify the date of permit issuance;**
**b. Provide a list of equipment that was modified or constructed pursuant to the permit;**
**c. State whether the permit is minor new source review (minor NSR), prevention of significant deterioration (PSD), major non-attainment NSR permit or other type of permit; and**
**d. If a permit is a PSD or major non-attainment NSR permit, specify the pollutants for which such permit was issued.**

19. A table listing air permits and permit applications and copies of the same are provided in Folder 19.

a. Information provided in table provided in Folder 19.

b. Information provided in table provided in Folder 19.

c. Information provided in table provided in Folder 19.

d. Information provided in table provided in Folder 19.

**(20) Provide any and all documentation, including, but not limited to, emails and meeting notes, relating to all openings located on top of the facility 's fermentation tanks and beer well. Include in the response a list detailing the date, time and duration of any venting from the openings (pressure relief valves, man-ways, etc.) on top of the fermentation tanks and beer well.**

20. Documents responsive to this request (the scope of which was revised as noted in the cover letter to this narrative response) are provided in Folder 20.

NOTE: Responsive documents were identified by searching GPOT's email server and archives for emails and attachments sent or received by parties who would have had dealings with the subject matter (i.e., Anthony Hicks, Keith Wetzel, Mark Larson, Kristi Tostenson, Janet Aultman, Kelly Longtin, Gunner Greene) which included any of the following terms:

- Ferm
- Fermenter
- Beer well
- Pressure relief valve
- Pressure Safety Valve
- PRV
- PSV
- Venting
- Excess Emission
- PSV release
- PRV release
- Lifting

In order to limit the amount of extraneous information being produced, GPOT further refined the search to exclude documents that were created after September 11, 2011 (due to their relating to producing records responsive to this information request) as well as documents containing information related to other GPOT facilities.

**(21) Provide documentation concerning the status of continuous emissions monitoring system (CEMS) at the facility. If no CEMS are operated at the facility, provide documentation as such.**

21. No continuous emissions monitoring systems (CEMS) are operated at the Facility.